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ABSTRACT

This paper presents a theoretical account of an 18-month case study of seven teachers concerned with curriculum development. A conception of the eclectic and problematic habits of mind required by intelligent teacher deliberation and choice is presented. The generation of useful information for teachers is given as a goal for this study. Usefulness, for the purposes of this analysis, is further defined in two respects: a) what the teachers claim to be useful; and b) what the project staff perceive to be useful to the teachers. A detailed analysis of the above two categories is given. An appendix recording problems stated by teachers and comprising 33% of the document is given. (JB)

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A CASE STUDY

OF

TEACHER CHOICE AND DELIBERATION

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Analysis of Deliberative Sessions

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INTRODUCTION

The project is being conducted with seven junior high school science teachers (most of them heads of departments) from a suburb of Toronto. We began meeting in May 1972, and, with the exception of the summer months, have met at two-to-four week intervals. We have had twelve sessions in all.

Sessions varied in overall orientation, dealing primarily with: the aims and strategies of the project, practical concerns of the teachers and the various theoretical alternatives and their implications for curriculum.

Each session was taped for later transcription and analysis. Unfortunately, our secretarial support was cut back and we were unable to get all the tapes transcribed and to construct protocols to feed back into deliberation. This problem may have affected the quality of the deliberative sessions, and it has prevented a thorough analysis at the present time.

Initial sessions dealt with the orientation of the project ("Booklet 1 - A Practitioner's View of Curriculum Development" and "Booklet 2 - The Feel of Curricular Deliberation"). Subsequent sessions have dealt with the philosophical and psychological choice points ("Booklet 3 - Theoretical Considerations: Philosophical Choice Point" and "Booklet 4 - Theoretical Considerations: Psychological Choice Point").

The pilot analysis presented here is based on excerpts from seven sessions ranging in time from the first session (May 15, 1972) to the most recent (February 9, 1973). It is considered tentative and exploratory. Note that quotations are followed by a code, eg. 1A. The number refers to the session (1-n) while A and B refer to morning and afternoon sessions respectively.

Approach to Analysis

Most analysts deal with the data of deliberation in terms of quantification. Such an approach to analysis yields descriptions which, though they may be interesting, provide little useful information for other deliberative groups.

The goal of this analysis is to provide both a descriptive account of deliberation and useful information for teachers. The underlying emphasis of the entire project is practical usefulness to teachers. Since we are not sure what <u>is</u> of practical usefulness, its discovery becomes a major research task

as we explore our experiences with the project. Criteria of usefulness for the purposes of this analysis are two: what the teachers claim to be useful, and what the project staff perceive to be useful to the teachers. The latter includes two changes in the teachers that we believe to be of crucial importance in deliberation. One of these is cognitive restructuring which we believe takes place on a continuum from amorphous thought to eclectic and analytic thought. The second is the development of interaction skills which are important in task-oriented discussion to facilitate task accomplishment.

Usefulness of the outcomes of deliberation for the project staff as they develop a model for future curriculum developers is also a consideration. One useful outcome is the ways in which teachers relate project activities and materials to their experience; this delineates the practical parameters of curriculum development and provides input to future planning and materials. Another is feedback on materials already prepared and on the procedures in using them.

OUTCOMES USEFUL TO TEACHERS

1. Cognitive Aspects of Deliberative Action

Four aspects of cognitive restructuring appear to result from this project.

1.0 Those related to the goal: the clarification of structures (the recovery of meaning) with respect to Philosophy, Psychology, Sociology and Pedagogy.

2.0 Those related to the objective: delimitation of the topography of deliberative thought.

2.1 Initial thought about curriculum appears to be amorphous.

2.11 It often contains incompatible but unrecognized components. (For example, some of the teachers believed in the relativity of knowledge, but were teaching as though they had the absolute truth. They became aware of this state of affairs when we discussed the philosophical choice point.)

2.12 It is not holistic in that there is no organic or functional relationship among ideas, beliefs, concepts and assumptions about the various factors bearing upon curriculum. (One member of the group was dismayed

when she realized all the things that must be integrated when building curricula:

"I thought [our goal] was possible until I read Schwab. Then when he started about all the errors - ....He didn't want the aims and objectives to narrow your vision. But I feel that I have no vision at the end right now at all." (1A))

2.2 We expect the participants to move toward eclectic thought following the delineation of choice points and the analysis of alternatives. Eclectic thought may be described, for purposes of this project, as intersects of ideation in different domains. It is defined (dimension, vector) space as opposed to the unknown space of amorphous thought. (Figure 1 provides an hypothetical example.)

3.0 Those dealing with procedures: thought processes during deliberation.

3.1 Pseudo-agreement. "We all mean the same thing really." In the initial meetings the teachers felt compelled to agree (for example on the concept of curriculum) though considerable differences appeared to exist.

3.2 Recognition that differences exist. "You don't agree with that, do you?" "No."

(Example:

"You don't think that would work"

"Now with this discussion about free schooling, why wouldn't your mind sort of try to keep exploring it more, try to find more about it and accept it as another thing....What your mind did was go click, click, click, click - it won't work in the school system. I have this feeling from you, and maybe I was wrong, that it was being cancelled out."

"It is wrong, but you're not wrong.")

3.3 Validation of differences via points of reference. As we look through the data we see three ways in which the participants validate their respective positions:

3.31 Internally - 'I am that kind of person'.

"There is no way I am going to personally sit down in front of a machine; I don't care whether it's Skinner's machine or anyone else's machine...it just isn't going to turn me on unless I'm beaten up."

Figure 1/Choices for Science Curricula—A Hypothetical Example*

Conception of Classroom Epistemology	Conception of Knowledge in Science: Rational Empiricism *An attempt to relate observable phenomena in a rational way. Stress on consistency of ideas with phenomena and with each other. Emphasis on critical thinking and problem-solving.*	Systematic Empiricism *Carefully controlled experimentation, hypothesis formulation, and testing. Stress on articulating theory and systematic methodology. Emphasis on methods of scientific inquiry.*	Paradigmatic Research *Inquiry conducted in a shared conceptual framework. Recognition that procedures are based on both our conceptions and the peculiar characteristics of the phenomena studied. Emphasis on competing conceptions and knowledge claims and how they are supported through the gathering and interpretation of data.*
Programmed Instruction Low teacher input; Low student input.	Compatible. Programmed instruction ensures the systematic acquisition of "factual" material by means of presentation, reviews, testing, and remedial sequences. Problem-solving at the technical level can also be handled fairly effectively.	Somewhat compatible. Programs can be designed to teach scientific methods. However, students would have to rely on vicarious experience.	Not compatible. One cannot dialogue effectively with a computer or programmed materials. No programs presenting competing conceptions and knowledge claims have been devised as yet. The potential effectiveness of such programs is in question.
"Traditional" Teaching High teacher input; Low student input.	Compatible. One teaches technology, applied science, and "pure" science. "Factual" knowledge of phenomena and of the ideas relating to them are selected by the teacher and presented systematically. Student learns the information presented and practices problem-solving.	Compatible. Instruction in the techniques of controlled experimentation is followed by laboratory work to apply those techniques.	Not very compatible. May convey the effects of different conceptual frameworks on knowledge claims but tends to stress the "correct" one. Without student involvement in discussion, competing claims might just become a confusing jumble of "facts."
Free School ("Laissez-Faire") Low teacher input; High student input.	Not very compatible. May foster the collection of observable data (however haphazard). Students are free to think independently and to attempt to solve whatever problems attract their attention. However, no systematic acquisition of knowledge may take place, nor is there any assurance of effective critical thinking and problem-solving.	Not compatible. Free schools do not usually ensure the acquisition of systematic methodology.	Somewhat compatible. The specificity of procedures, their adaptation to the phenomena to be studied as well as to the conceptual framework of the person conducting the study, may be recognized in such a setting. Much opportunity for dialogue about competing conceptions and knowledge claims. However, these opportunities may not be realized if leadership in discussion is lacking.
Ideal Open Education High teacher input; High student input.	Compatible. Since the success of the open classroom is dependent upon student interest, a richly varied and stimulating environment is provided. Motivated students will be guided in their exploration of materials. Materials provided will be largely knowledge-based.	Compatible. Given the stimuli of a rich environment and the expert guidance of the teacher, students can design and conduct their own experiments. Materials provided would include printed materials that illustrate experimental techniques as well as manipulative materials for use in conducting experiments.	Very compatible. Situation provides opportunity for the exploration of diverse conceptual frameworks and for informed, guided discussion.

* This example, taken from Booklet 2, "The Feel of Curriculum Deliberation," of the Deliberation and Choice project, was prepared by Barbara Dienes for illustrative purposes with our teachers. We make no claims, at this time, for the merits of its content since we have not subjected the example to extended scrutiny. The categories of scientific knowledge are taken from Bridgam (1969) and the categories of classroom epistemology are closely related to a model informally put forward by Hein (Connelly, 1971b). The latter is clearly inadequate to our ultimate purpose since, in addition to the teacher and student, we want to capture the materials of instruction and the phenomena of science in our notion of classroom epistemology.

3.32 Externally - 'My situation, students, community, principal, is such that...'

("...I accept...that...a man's basic source of dignity is essential freedom...while Skinner cannot accept a that at all; he just can't because he is going to determine just what the individual is going to be... all the way through this thing he does the controlling. I just can't accept that."

"I can't believe that there is a machine that could be reprogrammed in all the complexity necessary to teach some of the concepts which I am teaching or which are being taught".)

3.33 Theoretically - 'A person holding this theory....'

("You see, you are not just buying the mechanics of it all; you are buying a whole view of man.")

3.34 Intersects of choice points. Teachers begin to see that some alternatives at one choice point are compatible or incompatible with alternatives at another choice point. (For example, they began to relate psychological theory to philosophy thus: "Skinnerian techniques are practised by Thomists, the ultimate reward being heaven", and "Skinner must be a realist; he feels that the answers can be known."

4.0 Applications - This we believe will show up in later stages of the project.

Since the analysis of such cognitive outcomes is detailed and complex, it will become the subject of a subsequent paper. As we envision it, this analysis will permit both the case study of each participant and of the transition of the group as a whole.

2. *Teachers' Development of Interaction Skills*

The growth of skills in interactions within task-oriented group situations requires a considerable length of time. The acquisition of such skills in any deliberative group is dependent on a number of variables: group size, consistency of membership and attendance, length and frequency of meeting times, type of leadership provided, previous experience in similar situations, etc.

Any established theoretical system for analyzing group skills can be applied to the transcripts (for example, Bales' Interaction Process Analysis), but this cannot be profitable until a full series of transcripts is available. The eleven taped sessions which have taken place might yield sufficient data, though the results obtained at this point might be inconclusive. The length of the meetings has varied from four to eight hours; membership of the group has changed slightly, an eighth teacher having dropped out of the project because of the pressures of her position after the seventh session and a specialist in group dynamics having joined the project staff on the seventh session; attendance has varied from three to eight teachers; and group leadership has changed both in terms of personnel (a teacher or either of two members of the project staff) and in terms of the nature of interventions (questioning, explicating, recapitulating, directing attention to specific passages or concepts, playing the devil's advocate, stating prejudicial views). And, of course, we have the practical problem of getting the transcripts typed.

The most visible evidence of increased interaction skills is statements of the teachers themselves to this effect. For example: "We have this strong feeling of being a group because of what we have gone through together." "We're getting better at covering the material." "I couldn't have said that to you two months ago." Such statements are indicative of cognitive development as well, but it is likely that an analysis of task roles being taken by various members of the group over a length of time would be productive in identifying group skills before verbalization of awareness of such development occurs.

3. *Things Perceived as Useful by Teachers*

This is dealt with under the headings "Out comes Useful to Project Staff", and "Feedback on Materials and Procedures".

Outcomes Useful to Project Staff

1. Problems (The Project as Related to Experience)

In relating the project activities and materials to their experience, the teachers often talked in terms of practical problems. We found that such discussion enlivened our sessions and we made no attempt at a rigid separation of theory and practice. This mix had a beneficial effect on the attitudes of the teachers, though it tends to complicate analysis.

Problems stated by the teachers can be categorized as internal or external to the project and as of immediate or future concern. (See Figure 2.)

Items in Category 1 (immediate/internal) are instructive to us in revising the materials and in selecting psychologically supportive procedures for the teachers. Those in Category 2 (immediate/external) were generally reinforcing in that they indicated that the project is on the right track to meet the needs of the teachers. Those in Category 3 served both the above purposes. Let us examine items 4 and 5 of Category 3, since they were discussed at some length in the excerpts of the deliberations which we have at present.

The participating teachers brought up the problem of the need to motivate teacher groups for curriculum improvement. (The project staff had taken motivation for granted, since they are presently dealing with a group selected on the basis of motivation.) With regard to initial motivation, one participant, who is working with a group of teachers presently, suggested a series of questions: "What are you doing? Why are you doing it? Do you like what you are doing? What do you like about it and what don't you like about it? What do you intend to do about it?" When the concept of "floundering" came up, the group recognized the need for mediate motivation as well. Most groups with which the participants had experience had floundered and bogged down. The group debated whether or not floundering was necessary and generally agreed that it provided an opportune time for input. A number of suggestions resulted from this discussion: the development of a "flounder detector" - a strategy that would allow us to place people on a "floundering continuum" and provide different starting points accordingly; the provision of auto-instructional materials (readings with questions, explanatory comments and marginal notes); and the possibility of requesting position papers.

Another area of discussion resulted in a realization that strategies are necessary in the use of the expert: protocols (both verbal and personal) for

Figure 2. Problems Stated by Teachers*

<table>
<tr><td colspan="2">IMMEDIATE</td></tr>
<tr><td>Internal

1

1. Materials
a. Insufficient explanation in Introductions of booklets
b. Language of some readings (eg. Schwab) too esoteric
2. Definitions
worried about getting a consensus on a definition of curriculum
3. Goals and objects
a. Felt need for clarification of
b. Some had initial feeling they might be unrealistic
4. Personal limitations
a. Theoretical knowledge
b. Breadth of experience (with children from various socio-economic groups, for example)</td><td>External

2

1. Ministry regulations (restrictive)
2. Increased responsibility for curriculum without commensurate:
a. training
b. time
c. resources
3. Consequent duplication of effort by various teacher groups and waste of time (getting bogged down) within groups
4. Specific school changes (band wagons, eg. mini-schools, family of schools, behavioral objectives)</td></tr>
<tr><td colspan="2">FUTURE</td></tr>
<tr><td>Internal

3

1. Variables
There are vast number of variables that must be taken into account; at the same time teachers recognized a need to achieve an "organic" view of child and curriculum.
2. Planning perspectives (starting points)
a. Global planning vs particular needs (different kids, circumstances, etc.)
b. Subject-centered vs student-centered planning
c. Theoretical vs practical starting points
3. Difficulties of relating theory to practice
4. Motivation of teacher groups
5. The role of the expert</td><td>External

4

(A number of questions regarding the future of society, schools, curriculum, etc., arose in subsequent sessions, but the transcripts we have at present do not include them.)</td></tr>
</table>

* Examples can be found in Appendix A. All these examples are from Sessions 1A and 1B.

obtaining usable information from persons who have a single unified way of looking at things, and also material that would be readable by teachers both in terms of quantity and style.

2. *Feedback on Materials and Procedures*

Deliberation s[illegible] back and forth between recovery of meaning and evaluation. One aspect of the [illegible]on was reaction to the theoretical positions of the selected readings. [illegible]es of this are the positive reaction of a participant to the realist phi[illegible] Greene, (After asking for six copies of the paper for his staff, he said: "I would like to thank you for bringing it to my attention. It falls in so well with some ideas I've had and haven't been able to put down...I really enjoyed." When asked by another participant why he felt so positive about it, he replied: "I just feel that a lot of what he's saying here - most of it - seems to tie in with a lot of the feelings that I have about what education should be." 7B) and another negative reaction to behavioral psychologist Skinner ("I'm not happy about this paper; there are many things in this paper that I don't feel good about at all." "The whole foundation he [Skinner] raises is very scary stuff, in a way, to me." 11A) A second aspect of evaluation was reaction to the nature of the materials provided and procedures of the project. These comments feed back into a restructuring of the project and a revision of the materials.

Excerpts from the available transcripts indicate a generally positive reaction to the materials. With reference to Schwab's, "The Art of Eclectic", they said:

> "It gives us a greater awareness of the complexities of curriculum planning....there is a tremendous amount of thought in here and I think it is fairly useful."

* * *

> "The theorist makes his theory without ever going into the classroom; the practitioner makes his curriculum without looking at theory. We never look at the reasons for our decisions. I think it is good from that point of view and it is practical because it does point out those limitations."

* * *

> "He makes very clear to us as subject teachers that we are very often looking at curriculum through the glasses of the scientist, that pure scientist has very slanted views, and that we shouldn't adopt this sort of approach. I agree with that."

"It would seem to me that since we're rank amateurs, it certainly is necessary. There's no way you can consider not having a refined form of this in your planning, because we just have snatches of information on curriculum planning, and we have ideas that are not firmly entrenched in our minds; and when we sit in groups like this and discuss, we find we start revising our views on things."

With reference to the materials in general, they said:

"I think we do need this kind of paper because we've gone - this line down here talking about curriculum and curriculum itself - how many times have we all been involved in jumping into the curriculum without starting at that point, and that's why it's falling down, and maybe the next step is to jump into another curriculum and it falls down. I think we've gone through this enough times that we have to realize that we have to go back and talk about curriculum, this sort of thing."

* * *

"I think there's a very great danger, through, unless this is carefully controlled, of getting bogged down in theory, bogged down in terminology. As a result, very little gets accomplished. I know that a curriculum committee could stand two or three months considering the theory of it, developing the technique that they're going to use to come out with that end product, rather than really getting down to it and doing it."

* * *

"Yeah, but maybe that's necessary; maybe until they go through that, sort of clearing the cobwebs out of their mind, and what not, maybe nothing much will come out of that. It just takes time."

* * *

"In every two-year period you spend how many hours developing curriculums and curricula and changing those and so forth, where you could have avoided that had you spent more time in the initial stages looking at a framework of the reasons for this framework, the reasons why you would put things into a curriculum. You might end up saving yourself some time and energy if you were to go through that step in the first place rather than making a curriculum, and redesigning it, and changing it, and throwing it out, and getting frustrated by it."

* * *

"Yeah, and if I want my staff to help me with curriculum, then some sort of good relation has to be gone through, and we have to come up with material that they can get themselves thinking along the right way."

* * *

"I feel that some material like this has to be found, whether it's rewritten, whether it's Tom, Dick and Harry - I don't care. We have to have some things so my staff can work with me over a period of years."

* * *

"I think teachers are getting more and more of a sense that they're just so helpless. I don't think you can go to work every day, every day and face the kind of stress that you have to face in teaching with the load on your shoulders that you can't control your destiny hardly at all. Talking to people on my staff, this is what seems to be bothering them, and this is what's bothering me... Now that we have a chance to control our destiny in some sort of way... at least we have a chance to talk, draw something up, and hopefully have it carried out - when teachers have a chance to do more of this, their morale will come back."

Some suggestions for changes in the materials and alternative or supplementary approaches to their use were offered, however. A major one was that the readings, particularly Schwab's "The Arts of Eclectic" and the writings of the philosophers, should be written in teacher-readable form.

Trevor: I wasn't knocking the paper. The only thing that I found about it was that it was written in such a way that the method in presenting it to me was a little bit unpalatable, because I did have to work very hard to get to it.

Ed: If you said to your students, look, there are only certain terms I can use to explain this to you, swallow them anyway, and I am not going to tell you what they mean, you wouldn't last too long. If he was talking to teachers, he cannot assume that all of us are as well read as you. He should clean up his language a bit and let us understand it.

John: I think, as I say, it is deep and one has to keep wrestling with it.

Henri: I feel that there is a certain elitism that builds up with people that are in education and I think in this paper a prize example of that.....

Michael: Let me just try to interject once more: Let's take for granted, in our discussion from now on, that the paper is first of all too tough, at least it is written in an obscure way.

Henri: But you say it is tough and that implies, I don't like that word, that implies that my background is such that I am not quite capable of reading it, and that is not the case. The case is, that I haven't schooled myself, like I haven't spend a lot of time building up this sort of jargon - I don't want to be picky, but if I had time, I would go through and underline all the things that I mean.

Ian: Could we go back to the introduction? It says Preface - Recapitulation - Introduction Section. If you look at the last sentence in the first paragraph, I think he has fallen right into his own trap. He states, "teaching which is coherent with theory, often misses its practical mark". I think that he has fallen here, into a theoretical discussion which has missed the practical mark in a lot of cases, and he is a teacher. There is a lot of benefit, if you can read it 25,000 times and get something new out of it every time."

Another suggestion was that the readings might follow rather than precede group discussion, capping it and extending it.

In addition to perceiving usefulness of the materials and procedures to their problems of curriculum development, the teachers also derived pleasure from them. Reasons for this feeling of pleasure appear to be three: relief from the strain of their everyday situations, (One teacher remarked - and others concurred - "This was great. I always look forward to my day at OISE more than anything else. It's such a pleasant change." Another example refers to a specific reading - Geiger's "An Experimental Approach to Education" - "I found it amusing because I felt as though I was reading sort of a rerun of Pride and Prejudice. Instead of having vanity defined and all the various attributes of personality, I was being told what is intelligence, what is wisdom, and what is fancy; and so I found it amusing."); confirmation of their own beliefs (see the reaction to Greene, page 9); and the joy of intellectual challenge (another participant, reacting to Geiger's paper cited above, said, "I was intrigued by his dualism.").

This feeling has, of course, been extremely beneficial to the project for obvious reasons.

APPENDIX 'A'

Figure 2 - Problems Stated by Teachers

Category 1

1.(a) Ian: Well there was a phrase that cropped up several places - choice points - and I was sort of looking for an explanation of it. It assumed that I knew what choice points were and I really didn't.

(b) See page

2. Henri: One thing that I was concerned about in reading was that all of the first book was a concept of curriculum which we were working with and I wondered whether my concept of what curriculum is at all the same as anybody else's here and I wondered how important it is to perhaps get established what our various concepts of curriculum are.

Trevor: That is a point well taken.

John: I would agree that if we all wrote down a definition of that term that we would have quite a series of contrasts.

In what way?

John: Well, I think to some people it might be very broad and to others very narrow. Some people would put stress on content. To some it might mean technique and to others it might mean extremely broad.

Henri: I wonder how many would be as broad as Robert Welch when he said that "curriculum is all the experience children have under the influence of the school". I would be that broad. I was wondering if anyone else would be.

Trevor: I think I would be too.

I think I would like to be but whether I would or would not be.

Henri: Do all people feel that same way about curriculum or do you envisage it in some other way?

3(a) Helen: I would like to ask a question - well not exactly a question. I can't get clear in my mind, Michael, what you are trying to do. That may sound strange after reading Introduction and a couple of papers, but I don't really see in my mind exactly what you hope to come up with.

Trevor: That was the first thing that struck me after reading the Introduction, that there was no real specific aim in mind.

Ed: Sorry, but I thought I saw the aim there until I read Schwab. Then I thought that if the aim was what I got out of it, there was no way Schwab should be included.

Helen: I thought it was possible until I read Schwab. Then when he started about all the arts you had to take into consideration and correct all the errors

Trevor: .....Schwab's theme though about putting objectives or putting aims down before you go at something indicates this - he doesn't want any part of it.

?: I much more enjoyed the second paper.

Helen: He didn't want the aims and objectives to narrow your vision. But I feel that I have no vision at the end right now at all. I think that is a little bit different.

Michael: You mean of the project or of your teaching?

Helen: Of the project, of what we are trying to get to at the end without all the exact definition of it. Exactly what it is going to look like. I am not really sure where we are trying to go.

?: My interpretation of how one sets up a curriculum, and secondly possibly a curriculum for the natural sciences. As simply as I can put it I think that is what the objectives are. How does that match up with what they are in your mind?

(b)

4.(a) Helen: It makes it kind of.....different theories. I find myself at a disadvantage because I don't know theories..... ideas. He doesn't state the theories that have to be taken into practice and is it going to be necessary to ask you something to talk about eclectic arts. He is assuming that there are going to be theories, and therefore what theories?

John: You say the theories aren't coming out, the stressed theories on how careful you must be to use the theory so that it can be applied to a concrete situation.

Helen: From my point of view, I don't know the theories.

Henri: Well, like Helen, I feel that it's a great body of something or other that I'm missing in order to really read this paper and get anything out of it. Is that what you are saying?

John: Perhaps we know theories, but we don't know how to implement some of them. For example, one theory that we have is we should have children develop a very positive attitude to their work and the subject and so on, and how.....

(b) Ed: But, again, I think it's our lack of knowledge that's gumming up the schools. What are legitimate theories of learning? What have we heard part of and we just jumped on and said, "Gee, it sounds nice; let's try it."

Amy: One statement here on page eleven: "The problems of education arise from exceedingly complex actions, reactions, and transactions of men." Do you think we are going to talk about ..... that you could only ..... maybe I'm misinterpreting this paragraph, but the complex actions, reactions, and transactions of men that he is aware of are the things he has experienced in his short lifetime and in the several experiences he's had. So I see a very definite problem there in that teachers' experiences are generally the same. Most teachers have had comfortable experiences with school and therefore are teachers because of their comfortable situation. They are also security oriented; teaching is relatively secure profession. And therefore their experiences are limited, because we are basically the same kind. We don't have a great many teachers who have worked their way up. Cabagetown - I have never been connected with Cabbagetown. The kind of child whose kind of life was an orphan during the Korean War, the kind of experiences he had. Yet the type of child we're teaching may be in that group. None of us, or maybe very few teachers, come from a terribly rich and wealthy class that experience many other things, and these are the kind of children that Trevor is teaching. So we are limited there in the things that we can .....

Bruce: Another point along these lines is that we haven't experienced too much in the way of failures or we probably wouldn't be where we are, if we flunked out.

Amy: We would be teachers if we had been failures. Generally we have been successful. As I say, teaching is a comfortable bag and that's why we're here. We enjoyed it when we were young _____.

John: Even though there is a teacher sterotype and it's a restricting line of work for many, there is quite a range of teacher backgrounds and styles that the teacher brings to his occupation. And on that basis, I'm not sure that .....

Amy: Yeah, I agree, but the range isn't as extensive as the child's.

Helen: I think she has a point there, because you see some very _____ children, who are pretty unmotivated by your curriculum that you have available to them. So therefore, in your decision chosen from a range of abilities that are there, you have missed ..... You know, I found myself in many cases missing again and again the enriched child. I have a couple who are very clever children, and tried to _____ ____ them choosing something they are interested in, my suggestion. And

they're just not turned on and yet you know they have this ability and _____. If we could only feed them something to get their teeth into they could go. I think this is so for the enriched student. And then you could throw it back in for the soup for the stupid; because we haven't experienced failure, we don't know what it's like to be a child seven years, who has never passed a course, and has written papers and tried his best, still failed.

John: Well, because our perceptions are based on how we were educated or the way we teach, maybe we are supposed to perhaps look at the problem through many lenses, as was suggested. Perhaps the guidance man in your school looks at the student in a certain way, and the vice principal looks at him in another way, and you look at him in another way. And maybe because of our backgrounds, we have a narrow perception maybe - maybe our perception is very closely anchored by our subject or our discipline. Maybe we have to try and involve the resource of people in other fields, whether it's psychology or the discipline itself or whatever, to come up with a broader view, background, of what the student will .... will be appropriate for the student. Because maybe our field of perception is too narrow. To try to empathize with other people and look at him in terms of his interpersonal relations; look at him in terms of his career, in terms of his background, in terms of many things, rather than perhaps .... I know I find myself too often thinking in terms of the subject rather than in terms of all the other things that we're supposed to consider.

Amy: We haven't had enough experience to know how to motivate every child.

John: There's a problem.

Amy: But we're coming down to the same thing: we don't have enough background or enough experience to do what we want to do.

Trevor: But Amy, if you look at the group of teachers on that staff as a whole - don't look at them as individuals; look at them as a group of people heterogeneous in their background and everything else - I think the amount of exposure which is there, the idfferent various backgrounds that people come from, _____ your staff - I think it's a lot more heterogeneous than you think. And we're looking at almost a red herring of a problem.

John: Well, the problem we're working on, then, still is that we're stereotyped, we have limited backgrounds, which don't seem to be adequate enough to satisfy all the children, to accommodate all the children. That's what I get. Is that it?

Helen: Just looking at what you had on the board, I was trying to figure out - when you go to make a decision _____, do the theories across the top act on the theories up here? You know, you've got all these theories, and we have to make a decision. Shouldn't there be theories - how much emphasis on theories? What theories? And then the

different schools of theory. And we've _____ changing today. And then you've got the child, the child the way he is, and all the inputs of the child. And the the inputs going into this type of thing. Then you've got the teacher and the inputs that he's putting into it. You cannot talk about the child, you know, his responses, because you can talk about the responses of the child in terms of so many different theories. And, you know, our own responses in terms of so many different theories. I don't know - and then we start saying these are the things - when you consider all these and you are ready to put them all together - you know, ten thousand inputs- you've got to remember, it's bloody hard.

LAUGHTER

Michael: You've just been through a large part of the eclectic art already, when you list all those problems and all those understandings. You've come a long way down the eclectic art road.

Bruce: The question is now: What do you do with it?

Helen: You figure, and figure, and figure, and figure - and where - as it gets bigger -

Michael: The curriculum is the world, in one sense.

Trevor: We've got to set _____. If we start off like that, we're just heading for frustration. So we've got to get ground rules about the things which we are going to consider.

Ed: Maybe after you get a certain distance it starts contracting again.

Category 2

1. No available transcript

2. John: I see the situation quite changed now. It's not what ought, but what is. We are now expected to give more and more attention to our own curriculum. The ball has been thrown to us and whether teachers have time or not, they're going to have to make time to, not do it over a day or a month or a year, but maybe five years. It may take us that - five years - in the department to come up with a unique philosophy in curriculum that subject in that school.

Helen: One of the things that will come out of this project is that we have to stand up and scream and say, "Look, one of the things we found out in doing this is that this type of framing or information that we have is an aid that the everyday teacher has to be given more and more, and is not coming from the Department. Maybe this is what we will find out.

Michael: On this point, I am just appalled at the requirements that are now being put on schools. I've been with Department of Education people, for example, deciphering the guidelines at county level meetings at which we all had a chance to get up and give our spiel and the expectation is fantastic, but there's been no aid or assistance whatsoever of any sort come out as to how a teacher can more adeuqately enter into all of this and that I run into at the same time budgets have been cut back, and in point of fact what you're saying is true: there's bigger class loads, less free time, less willingness to bring in teachers. So it's a strange time; I don't know what will come out of it eventually.

Helen: Yes, and in some cases first- and second- year teachers make decisions that _____ before. In many ways maybe that's too broad a jump. They are making decisions that first- and second-year teachers never, never had to make before.

Helen: No. I'm agreeing with his ideas, but then I have thin line at the back of my mind. This word ought. We ought to do this and we ought to do this. He is going to have a larger class and he is going to have a heavier timetable and he is all these things. If you really are saying we ought to do all these things, then my sort of feeling is _____ and that we ought to go back with a greater knowledge than we had before and seeing ourselves as sort of almost the teacher trainers in a sense giving broader ideas. It ought to be done but I really don't think we ought to be doing it. I see that the reason that the everyday teacher can't move more freely into this is because our teacher training doesn't allow them to do that. If you see the way some of the American teachers are trained, they will be talking at the Schwab level and leaving us out in the cold. I think this is one of the basic things. And certainly the feeling I had more than anything else is suddenly are we doing what the Department of Education could start out with teacher training right at the very beginning to make this level more easily attainable.

John: Ludwig could. But I see right here and now. I see our situation is really where we don't try to lay down anything; we just try to absorb as much as we can and hopefully assist in the local kind of curriculum planning that we are expected to carry out according to the new guidelines.

Helen: I would hate to leave one of the papers out just because of the difficulty to read. I feel that the decisions we come up with are so limited. They don't take in learning theories enough; they don't take in teaching processes enough - they don't take anything into consideration enough. And I know that when you write a good unit, you should take these things into consideration

Helen: I was thinking more in terms of the energy spent in repetition. I'm sure in many cases all of us are doing exactly the same thing, again and again and again and again. Your position on where you should start out a program and what you should be working towards, and, you know, we're going over it in all the schools. And this is what I meant by the reduction of energy. Perhaps some sort of guideline, if that's the right word, will come forth that will allow us to zero in on a discussion much more readily when we start this.

John: I know there's repetition, but I think people have to go through the experience of curriculum planning to implement their own curriculums satisfactorily. They just have to do this. As we know that hasn't worked. So it seems to me there's going to be a lot of repetition and it may be necessary because in order for teachers to become better teachers, they have to become part-time curriculum planners and in doing that they'll develop their own curriculums within their own schools. And maybe that's what we'll have: twenty-five schools with twenty-five different philosophies of teaching science, each school with its own particular science program based upon the needs of the community and the kinds of personalities in the department and so on. But they go through the experience_____. It will eliminate a lot of overlapping in that the net result will be far superior than if we try to come up with a set of guidelines that we could perhaps pass out to every school. At least if we did pass out any, I imagine they would be rather brief and very broad.

Category 3

1&2. Ed: Maybe this is O.K. then if you are thinking of the thinking processes we are going to go through you can include this. But then you go further than that and you are thinking of your school which will be entirely different from my school in that situation so we get down to the local for the practical things. So you have to leave loopholes. So once you get past the thinking thing then surely you have got to sort of ignore that and go to a narrower concept of curriculum.

Henri: Like, as a start maybe, but not -

You always have to have stresses but you have to sort of keep the whole thing in your mind all the time I think, because you have sort of a type of curriculum which we operate on now but you have sort of a set of things written out that you are going to try to carry out. As you try to carry these things out you are very greatly influenced by, say, the class that the kids have come from the time before, the amount of time you've had them and the general tone of the whole school, the background that the kids come from in the environment that they live and all the pressures that are put on you by the administration. I don't think that you can keep all of those things in mind all the time. You do have to focus down and produce some tangible things to do but still introducing these you have to see them terms of how you are going to actually carry them out in the system in different situations.

John: Yea, you could go on and on, there are so many variables and I think you take the whole into account if possible, but you still have to keep your eye on certain stresses.

Trevor: I think that all of us here agree that there is such a wide diversity that the levels that we are at in the schools, I'm at a school where children come from a particular area, I'm dealing with a much different animal than you or than Bruce. And I think one of the things that I look for is a neme for curriculums to leave it broad enough that there is room for teacher initiative to custom fit the curriculum to his particular area, social area, and type of kid as such. If we are going to put down aims which limit us, then we're going out on a tangent.

?: I don't think that an objective of this is to make a curriculum as such. It may as Michael said the other day, I forget how he put it, a lucky off-shoot sort of thing, but the idea is how one sets up a curriculum taking into account as many variables as you have to face.

That is right. And Schwab does a pretty good job of pointing that out.

Ed: Isn't part of this - at least I thought part of this was the idea that you were going to show teachers the type of thinking that had to go on before they could set up a curriculum whatever they thought a curriculum is.

Henri: I think that people in Junior High School are forced. When I was teaching Senior High School I never had this kind of pressure on me as I have had in the few years I have worked in Junior High School. You are forced to look at things so organically.

?: What do you mean by organically?

Henri: Well, not teaching - say, not having say you and a subject and a student a subject, this sort of content curriculum separating you and the student. I felt that in High School most of the teachers this was the way they operated. They definitely want to keep the subject in between them and the student.

?: They had a curriculum and the students had to come into that type of thing.

3. John: No. They say teachers should travel all over the world and so on, and bring forth a great wealth of information and background experience and that. But I think we can bring enough to it. I think what we seem to be concerned with now is where to start. Do we start by looking at theories and adjusting them to suit our situations, or do we start looking at our situations, seeing what problems our situations present and then looking at the theories that will satisfy them?

?: Maybe we will get a real problem trying to reconcile theoretical and practical.

Helen: I think that this is just the point. The fact that we start going too much in different directions. One circles this way and the teacher sits here and never the two shall meet. This points out exactly the fact, but we have to look at these arts because we are going too far away. You know there is a theorist her and practitioner there and we never look at each other's; the theorist makes his theory without ever going in the classroom and vice versa. We never look at the reasons for our decisions. I think it is good from that point of view and it is practical because it does point out those limitations.

Ian: I just wanted to point out our problem of reconciling these divergent theories. _____ and that's going to be an immediate problem with us.

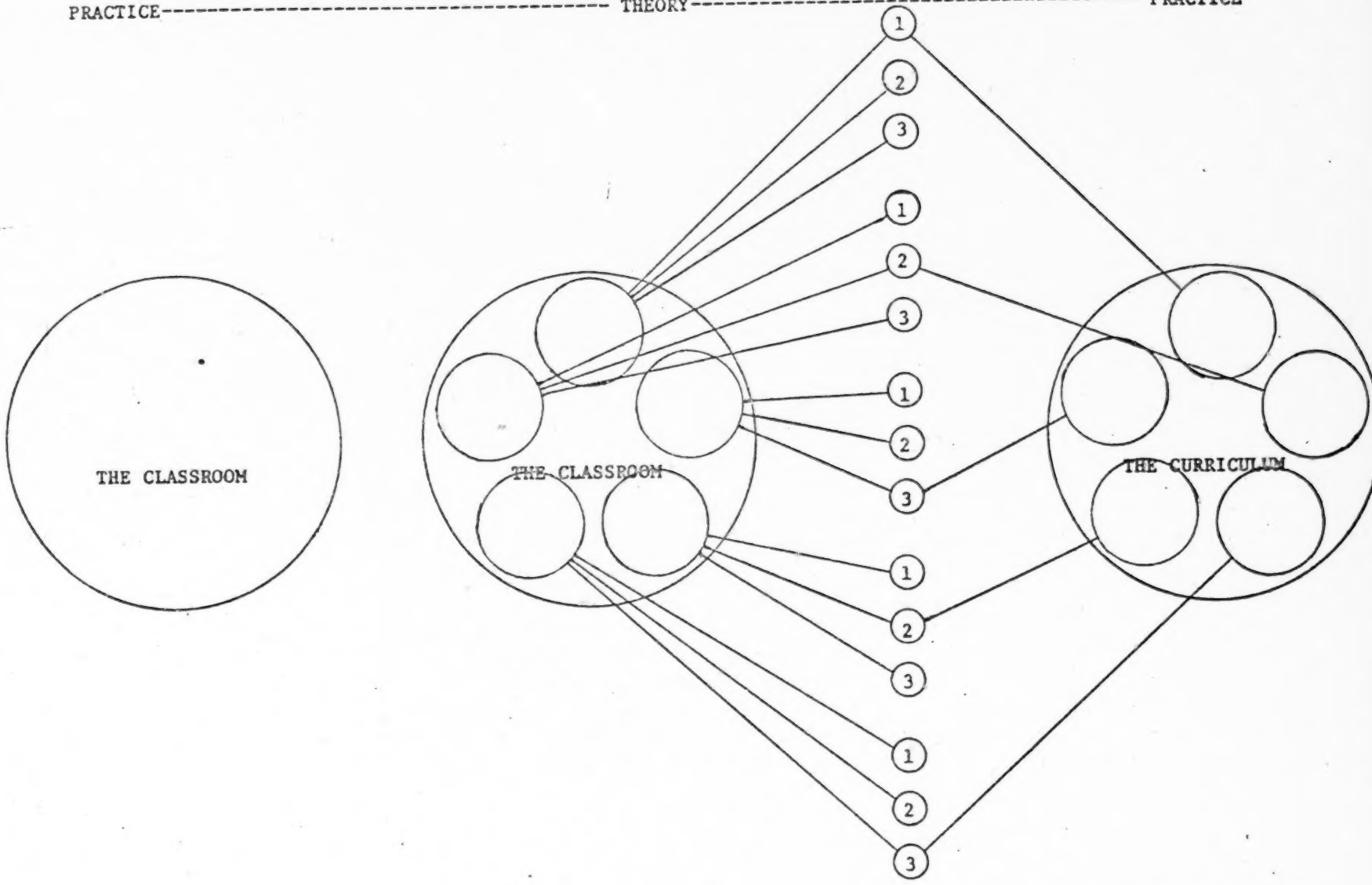
John: The problem, then, here suggested is how to cope with things that are missing in the generalities that theories present us; how to take into account the specifics related to the theories that we apply; and I think the thing to do there is to ask yourself, you know, what is relevant and what isn't to the theory? What specifics should be taken into account and what shouldn't? You can't take everything into account.

Helen: Yes, I think when you say you should think about these things, I think that you have to have some - I don't know if list is what you want - or a summary of different ideas that these people are putting forth. But I think that by the time you come down to the actual decision making, you have to have a very definite way of simplifying, considering these types of conditions within your school and that we will try to make the decisions easier. I don't think you can have all of this theoretical when it comes down to making decisions here for the children. Maybe you should, but you couldn't make a decision, you know two decisions in one day ever, if you had to consider all these things.

John: Yeah. This is .... usually, it seems to me, in most cases a lot of our theory won't work because we don't take into account a lot of the social and psychological factors that motivate kids.

DIVERGENCE AND CONVERGENCE IN THE DELIBERATIVE PROCESS

PRACTICE---------- THEORY ---------- PRACTICE



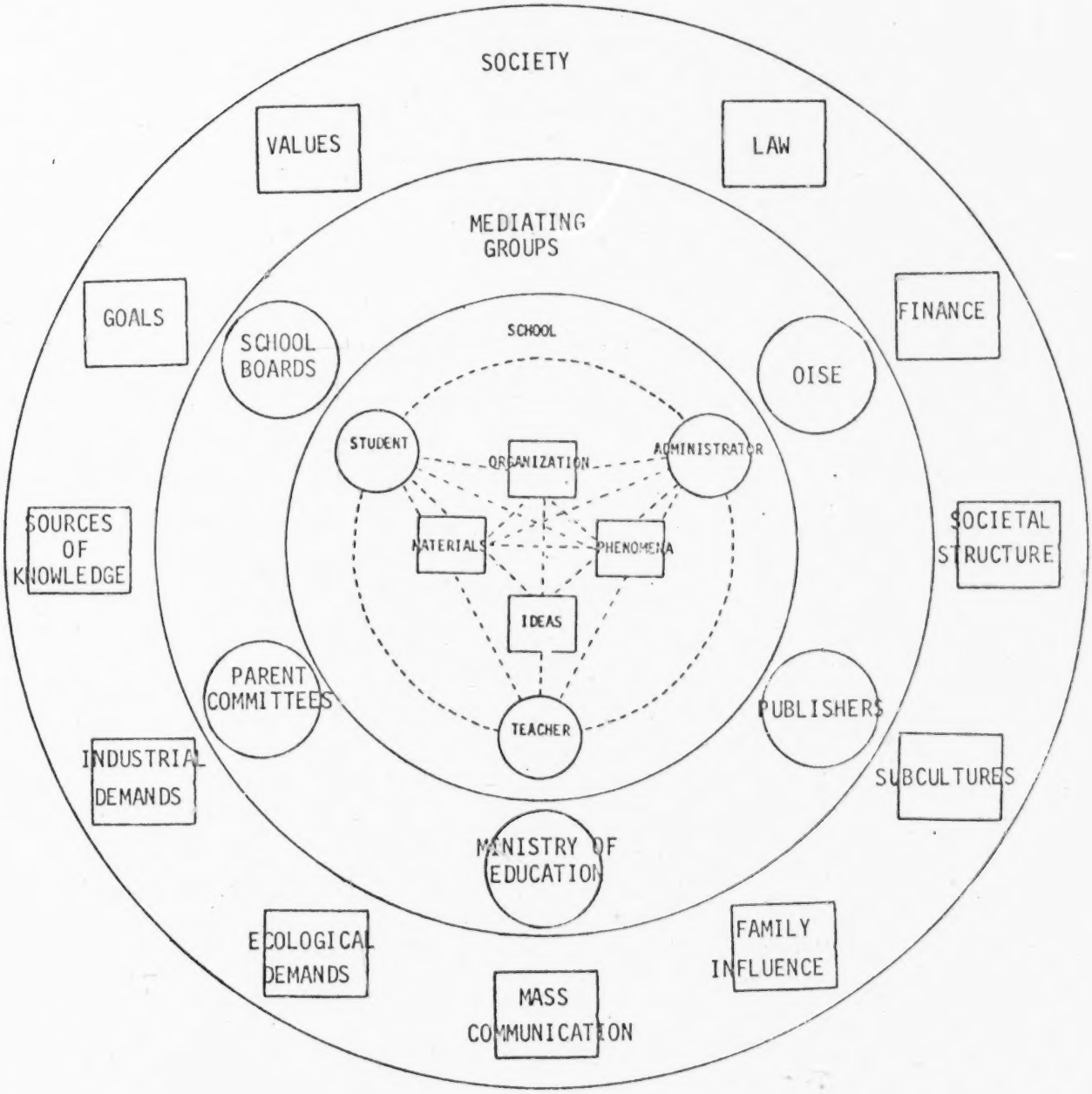
At first teachers see the undifferentiated practical - the complex total classroom situation. But this is not a viable unit for curricular deliberation.

Then within the practical situation they discern problematic areas or choice points.

For each choice point there is a number of alternatives. Input at this point is considered valuable. We consider the curricular consequences of each alternative.

Teachers make choices from among alternatives and build them into a curriculum.

THE PRACTICAL PARAMETERS OF CURRICULUM DEVELOPMENT



1. The context of the school - society, its characteristics, resources, restrictions, goals
2. The classroom environment - physical organization, phenomena, materials, ideas
3. The human factors - characteristics and roles of students, teachers, administrators

IGURE 1. OVERVIEW OF DELIBERATION AND CHOICE

Deliberative Reaction

Analytic Deliberation

8 9 10 11

et 3 etical Considerations: sophical e Point	Booklet 4 Theoretical Considerations: Psychological Choice Point	Booklet 5 Theoretical Considerations: Sociological Choice Point	Booklet 6 Practical Considerations: The Context of the School	Booklet 7 Practical Considerations: The Teacher	Booklet 8 Practical Considerations: The Classroom Environment
sophical natives: which idealist, st, experi- list, exis- list, etc., ions	Psychological alternatives: operant conditioning and cognitive learning theories	Social and individual emphases in education	Practical parameters of curriculum development. (See FIGURE 2.)		

ed meanings to personal practical experience; discussion of curricular implications of various

ials and procedures to form the basis of a mechanism for local curriculum development.
uring and group interaction skills for optimal curricular deliberation and choice.

Jan. 26
1973

FIGURE 1. OVERVIEW OF DELIBERATION AND CHOICE

Type of Deliberation	Deliberative Reaction							
Project Phase	Teacher in Curriculum Development		Analytic Deliberation					
Session	1 2 3 4 5		6 7 8 9 10 11					
Materials	Booklet 1 A Practitioner's View of Curriculum Development	Booklet 2 The Feel of Curricular Deliberation	Booklet 3 Theoretical Considerations: Philosophical Choice Point	Booklet 4 Theoretical Considerations: Psychological Choice Point	Booklet 5 Theoretical Considerations: Sociological Choice Point	Booklet 6 Practical Considerations: The Context of the School	Booklet 7 Practical Considerations: The Teacher	Book Prac dera Clas ronm
Content	Orientation: The eclectic approach to curriculum development. Articles by Schwab, Fox, and Gooler and Grotelueschen	Others' practical experience with curricular deliberation. Research by Fox and Walker	Philosophical alternatives: papers which give idealist, realist, experimentalist, existentialist, etc. positions	Psychological alternatives: operant conditioning and cognitive learning theories	Social and individual emphases in education	Practical parameters of curriculum dev (See FIGURE 2.)		
Approach	Recovery of meaning; relation of recovered meanings to personal practical experience; discussion of curricular implication alternatives.							
Outcomes	For the project staff: feedback on materials and procedures to form the basis of a mechanism for local curriculum developme For the participants: cognitive restructuring and group interaction skills for optimal curricular deliberation and choice.							
Time Line	May 15 1972	June 1 1972	June 13 1972	Jan. 26 1973				

Deliberative Action

Curriculum Planning: Pre-Instruction	Curriculum Planning: During Instruction
l planning of a general science curric- for junior high school; regular feedback eliberative sessions.	Implementation; evaluation; development of mechanisms for adaptation and revision.

June
1976

Deliberative Action

	Retrospective Deliberation	Curriculum Planning: Pre-Instruction	Curriculum Planning: Du
Booklet 9 Theoretical Considerations: Pedagogical Choice Points	Videotapes and audiotapes of the deliberation of others; curricula developed by others and evaluation of those curricula; films, if available		
Alternatives that exist in the interrelationships of practical parameters	See above.		
	Analysis of vicarious deliberation; evaluation of curricula in terms of choice points and alternatives.	Actual planning of a general science curriculum for junior high school; regular feedback on deliberative sessions.	Implementation; evaluatio mechanisms for adaptation